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A REVISION OF THE RED-RUMPED CACIQUE, CACICUS HAEMORRHOUS (AVES: ICTERIDAE)

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The Red-rumped Cacique (Cacicus haemorrhous) is a moderately large, colonial, arboreal icterid, and type species of a Neotropical genus currently considered to include nine species (Meyer de Schauensee, 1966). It is widely distributed in northern South America east of the Andes, from Colombia south to northern Argentina. Its nearest relative is apparently the Scarlet-rumped Cacique (C. uropygialis), with which it is (almost?) completely allopatric, and which it resembles to the extent that the two species have occasionally been confused in the literature. The only locality from which both species have been reported, as far as I can discover, is Baeza, eastern Ecuador (C. "affinis" = haemorrhous, Goodfellow, 1901: 478; C. uropygialis, Chapman, 1926: 694). As stated by Hellmayr (1937: 32), it remains to be seen whether both forms are found together in the same altitudinal zone; collections from "Baeza" may have originated from anywhere within an altitudinal range of one to two thousand feet and possibly more (Chapman, 1926: 704).

Zimmer (1930: 433) and Hellmayr (1937: 32) have listed several characters useful in separating *Cacicus haemorrhous* and *C. uropygialis*, involving bill shape, plumage color, and wing formula. There is an additional character overlooked by both of these authors. In *uropygialis* the crown feathers are elongated into an incipient crest; even in the small subspecies *C. u. pacificus* the crown feathers are actually longer than in the much larger *C. haemorrhous*. In view of these morphological differences and the uncertainty as to possible sympatry,

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I prefer to keep *haemorrhous* and *uropygialis* as separate species for the time being.

Hellmayr (1937) and other modern authors have unanimously recognized two subspecies of *Cacicus haemorrhous*. For the northern race, Hellmayr gives the ranges as "French, Dutch, and British Guiana; southern Venezuela (Orinoco Valley and its tributaries); southeastern Colombia (Caquetá); eastern Ecuador; northeastern Brazil, south to the Pará region and (?) west to the Rio Madeira (Humaytá)." The queried Rio Madeira record will be discussed beyond. The second subspecies, according to Hellmayr, inhabits "Wooded region of eastern Brazil, from Pernambuco, Bahia, and Minas Geraes south to Santa Catharina; Paraguay and the adjoining parts of Argentina (Chaco and Misiones)."

Although, as indicated above, there has been general agreement that there are two subspecies of C. haemorrhous, there has been a long history of confusion as to the characters distinguishing these, and the correct names each should bear. The species name is based on Oriolus haemorrhous Linnaeus, 1766, from "Brasilia, Cayana." The next oldest name for this species is Cassicus affinis Swainson, 1834, from "Brazil." Cassin (1867: 64) applied Linnaeus' name to the birds of southeastern Brazil and Swainson's name to those of Cayenne, without discussing type localities. Cassin considered affinis Swainson to be "but a doubtful species," but recognized it provisionally, chiefly on the authority of Bonaparte (1853). Bonaparte's description is quite clearly based, not on the population of Cayenne, but on that of the Amazonian region, to be discussed beyond.¹ Sclater (1883: 161; 1886; 324) followed Cassin in using the name haemorrhous for the birds of southeastern Brazil and the name affinis for those of "Guiana,

¹ Bonaparte clearly misapplied the Linnaean name haemorrhous as well, but not to the "east-Brazilian form" as stated by Zimmer (1930: 433). Bonaparte specifically stated that he was using the name haemorrhous for the species of Cacicus (then spelled Cassicus) represented in the collection upon which he was reporting, namely, that of Delattre from Mexico and Nicaragua. He further states that, of the three species he recognized (haemorrhous, affinis, and uropygialis from "Nouvelle Grenade"), the first was "l'espèce la plus petite. .." Bonaparte's reference to C. haemorrhous should thus be transferred to the synonymy of the small red-rumped cacique found in Nicaragua, now known as C. uropygialis microrhynchus (Sclater and Salvin).

Cayenne, and Lower and Upper Amazonia." Sclater was less uncertain than Cassin about the *characters* of the two "species," describing (1886: 324) haemorrhous as "dull brownish black" and affinis as "glossy black." He further alluded to the "larger and thicker bill" of adult males of affinis, pointing out that Bonaparte had also mentioned this character. Six of the nine specimens of "affinis" then in the British Museum came from the Guianas, one from Pará (Brazil), one from Sarayacu (eastern Ecuador), and one from "Western Ecuador," a locality generally conceded by later authors to be erroneous. Thus Sclater's allocation of "affinis" to "Lower and Upper Amazonia" in the "Catalogue of Birds in the British Museum" (1886) would have been based on his one male from Pará and one from Sarayacu, although he had presumably also seen the specimens from Chamicuros, Amazonian Peru, in the Bartlett Collection (Sclater and Salvin, 1873). Sclater mentioned no difference between Guianan and Amazonian specimens.

The next step in the nomenclatorial progression was taken by Berlepsch (1889: 300), who stated flatly that the species of Cayenne and Guiana must take the name *C. haemorrhous* Linnaeus, with *affinis* Swainson as a synonym. No reason for this change was given. Sclater (1883: 161) had considered "Brazil" the type locality of *haemorrhous* because Linnaeus had mentioned this locality first, and he had therefore used *affinis* Swainson for the "Guianan form" in spite of the fact that Swainson's bird had also come from "Brazil." Berlepsch's synonymizing of *affinis* with *haemorrhous* left, by his reckoning, the bird of southeastern Brazil without a name. He therefore supplied the new name C[assicus] aphanes, with the type locality Santa Catharina, Brazil.

In this same paper, Berlepsch described as a new species *Cassicus pachyrhynchus*, based on two specimens from "Tarapoto (Cumbase)," Río Huallaga, Peru. He compared these birds with Guianan specimens of *haemorrhous*, and with *C. uropygialis* from unspecified localities. Hellmayr (1937: 33), without specifying whether he had examined the types of *pachyrhynchus*, placed this name in the synonymy of *C. u.*

uropygialis. One might think from the wording of his footnote on p. 32 that Hellmayr did *not* see the types, since he makes much of the fact that an examined specimen from Cueva Seca, Río Tocache, was "almost topotypical *pachyrhynchus*" in the course of a discussion as to whether *uropygialis* could be divided into northern (*uropygialis*) and southern (*pachyrhynchus*) races (an idea he rejects). Yet he *also* mentions "an immature bird from Tarapoto (Cumbase)" without stating whether this was one of the cotypes of *pachyrhynchus*, and calls attention to the fact that this Tarapoto bird "resembles *C. h. affinis* in wing formula, though otherwise it is a typical *uropygialis.*" We will return later to a discussion of the name *pachyrhynchus* Berlepsch.

Berlepsch's application of *haemorrhous* Linnaeus to the form of the Guianas was stabilized and justified by Hellmayr (1937: 30), who stated that the type specimen, in the Réaumur collection, came from Cayenne. For the cacique of southeastern Brazil, Hellmayr followed the suggestion of Zimmer (1930: 433) that this population should bear the name affinis Swainson (formerly applied to the Guianan bird in spite of the type locality "Brazil"). Zimmer reasoned that, although Swainson's plate was "somewhat equivocal," Swainson had visited those parts of Brazil where "aphanes" occurs, but not "those parts of the same country inhabited by 'haemorrhous' which, at that time, were rather inaccessible." Hellmayr (1937: 29), after an unsuccessful attempt to locate the type specimen of *affinis*, decided that Swainson's plate, poor as it is, "agrees much better with the Brazilian than with the Guianan form." Hellmayr therefore adopted Zimmer's usage of affinis for the "dull-colored form of eastern Brazil," with aphanes Berlepsch as a synonym. Hellmayr cited simply "Brazil" as the type locality of affinis; the name was finally fixed as the correct name for the birds of southeastern Brazil when Pinto (1944: 554) restricted the type locality to eastern Baía.

As of Hellmayr (1937), therefore, two subspecies of *Cacicus* haemorrhous were recognized, with names finally stabilized as C. h. haemorrhous (Linnaeus), type locality Cayenne, and C. h. affinis (Swainson), type locality eastern Baía, Brazil.

This has been the accepted treatment in the standard literature since Hellmayr (see, for example, Blake, 1968: 145).

As long ago as Bonaparte (1853), descriptions of a cacique had appeared, matching neither the Guianan nor the southeast Brazilian population of *haemorrhous*. Bonaparte's description was as follows: "Grande; la couleur rouge étendue; le bec droit, mais très-dilaté, énorme à la base." This description appears under the heading "*C. affinis*, Sw. (crassirostris, *Aliq.*)" (slightly mistranscribed in Hellmayr's [1937: 30] synonymy of *haemorrhous*).

I am not certain what Bonaparte meant in his use of the term "Alig." I would deduce, from related words in Latin dictionaries, that the intended meaning was "of some," "of others," "sometimes known as," or the like. However, I can find no earlier usage of the name crassirostris. If this interpretation of "Alig." is correct, then the name crassirostris Bonaparte, having been first published as a synonym and never adopted as the name of a taxon, is unavailable under article 11 (d) of the International Code of Zoological Nomenclature (1964). If, on the other hand, "Aliq." had some such implication as "or, more properly. . ." or "a better name would be. . ." then Bonaparte's crassirostris is a substitute name for, and a pure synonym of, affinis Swainson, even though Bonaparte's description was not of the bird called affinis by Swainson, according to article 72 (d) of the Code. In short, the name crassirostris Bonaparte is not available except as a junior objective synonym of affinis Swainson. Hellmayr was therefore in error in placing the reference to Bonaparte in the synonymy of haemorrhous Linnaeus.

Attention was called earlier in the present paper to Hellmayr's tentative allocation to C. h. haemorrhous of a specimen from Humaytá, Rio Madeira, Brazil. The wording of Hellmayr's footnote (p. 31) is as follows: "Birds from the Pará region agree with a Guianan series. A single adult male from the Rio Madeira (Humaytá), however, is much larger (wing, 209; tail, 125; bill, 40), and has a much stronger, more powerful bill. While the significance of this divergency remains to be determined by additional material, it seems well to state that

the bird is quite different from C. u. uropygialis, having another wing formula, more glossy plumage, the red of the rump deeper in tone, as well as much more extended toward the back, and the culminal ridge slightly flattened in the middle."

Comparison of Bonaparte's description with that of Hellmayr immediately raises the suspicion that Bonaparte had before him, misidentified as *affinis*, a specimen similar to that from the Rio Madeira.

The "additional material" to solve the problem of the Rio Madeira bird, called for by Hellmayr, is not only available now but was available when Hellmayr wrote. Specimens in Carnegie Museum and elsewhere show clearly that a third, highly distinctive subspecies of *Cacicus haemorrhous* inhabits the Amazonian region of Brazil and Peru. This subspecies differs in several ways from either *C. h. haemorrhous* or *C. h. affinis*, but its principal character is its massive bill, swollen at the base of the culmen—or, in Bonaparte's apt words, "le bec droit, mais très-dilaté, énorme à la base."

We have already seen that the name *crassirostris* Bonaparte, although probably intended for a specimen of this Amazonian race, cannot be used for it because of nomenclatural technicalities. No other name listed in Hellmayr's synonymies for the species *Cacicus haemorrhous* is applicable, and it would appear at first sight that a new name is needed for the Amazonian subspecies. This is not, in fact, the case.

In reading the original description of *Cassicus pachyrhynchus* Berlepsch (placed by Hellmayr, as noted earlier, in the synonymy of *Cacicus u. uropygialis*), I was struck by wording that did not, to me, appear descriptive of *uropygialis* but rather of a bird similar to the large-billed Amazonian population of *haemorrhous*. Berlepsch stated that the two specimens of his new species differed from specimens of *haemorrhous* "durch auffallend starken, breiten und hohen Schnabel. Derselbe ist fast um ein Drittel stärker als bei Guiana-Vögeln. . ." He went on to say that the dull color and restricted size of the red rump patch were reminiscent of *C. uropygialis*, whereas Hellmayr had called attention to the *deeper* red and more *extended* rump patch of the Rio Madeira specimen. Berlepsch suspected that the "synonym" *crassirostris* cited by Bonaparte might apply to his new species, but rejected this name as not provably applicable.

The measurements cited by Berlepsch for his two unsexed specimens indicated that his types were almost certainly a male and a female, these caciques being strongly sexually dimorphic in size. The wing length of the presumed male, 177¹/₂ mm., seemed too great for *uropygialis* (for which Hellmayr had given wing measurements of males as 153, 157, 160, 160, and 165 mm.), but yet too small to match the Rio Madeira specimen with a wing length of 209 mm.

I was permitted to borrow the cotypes of *pachyrhynchus* from the Senckenberg Museum in Frankfurt am Main. It took no more than a glance to tell that these specimens do, indeed, represent the Amazonian population of *Cacicus haemorrhous*, and are not *C. uropygialis*. Their bills exactly match specimens from Amazonian Brazil in Carnegie Museum. The color and size discrepancies alluded to above are explained by the fact that both specimens are first-year birds, as suspected by Berlepsch when he characterized his types as "Zwei anscheinend nicht ganz ausgefärbte Vögel." First-year birds of this species are not only duller in color, but often markedly smaller than older birds.

The three subspecies of *Cacicus haemorrhous* are summarized below.

Cacicus haemorrhous haemorrhous (Linnaeus) Figs. 1 and 2, right

Oriolus haemorrhous Linnaeus, Systema Naturae, 12th ed., 1, 1766: 161 ("Brasilia, Cayana"; type from Cayenne, *fide* Hellmayr, 1937: 30).

Highly iridescent with blue reflections, both above and below; bill slender, culmen not swollen at base, but tending to be ridged.

Measurements: 28 adult males, wing (flat) 168–187.5 (175.8); tail 100–115 (105.9); culmen from base 34–41 (38.2); width of bill at posterior end of nostril 7–10.5 (8.5). 3 adult females, wing 134–142 (138.0); tail 83–92 (87.5); culmen 32–34.5 (33.7); width of bill 8–9 (8.5).

Range: The Guianas, northeasternmost Brazil in Amapá, southeastern Venezuela in Bolívar and Amazonas, and the Orinoco drainage of east-

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FIG. 1. Adult males of *Cacicus haemorrhous*, dorsal view. Left to right: *C. h. affinis*, Arroyo Urugua-i, Misiones, Argentina; *C. h. pachyrhynchus*, Villa Braga, Rio Tapajos, Brazil; *C. h. haemorrhous*, Pied Saut, French Guiana.

ern Colombia. The specimen from the Sierra Macarena, Meta, Colombia (FMNH: see acknowledgements for explanation of abbreviations) listed by Blake (1962: 107), a first-year male, matches specimens of the same age class from Venezuela and Cayenne. It is the southwesternmost example I have seen of typical *haemorrhous*. Intergradation with *pachyrhynchus* is discussed below, under that subspecies.

Cacicus haemorrhous pachyrhynchus (Berlepsch) Figs. 1 and 2, center

Cassicus pachyrhynchus Berlepsch, Journal für Ornithologie, 37, 1889:
299 ("Tarapoto [Cumbase]" = San Pedro de Cumbase, near Tarapoto, San Martín, Peru).

Large, with culmen conspicuously swollen at base; color very deep bluish black, but not conspicuously glossy as in *haemorrhous*, and having, in good light, a faintly purplish sheen; scarlet rump patch extending, on the average, more anteriorly than in other races.

Measurements: 13 adult males, wing 183–210 (193.5); tail 107–125.5 (116.5); culmen 38–42 (40.4); width of bill 11–14 (12.7). 6 adult



FIG. 2. Same specimens as figure 1, lateral view.

females, wing 139.5-149 (146.6); tail 89–98 (95.2); culmen 33–35.5 (34.4); width of bill 10–12 (11.4).

Range: The Amazon and its southern tributaries in Brazil and Peru. As Meyer de Schauensee (1966) omits Peru from the range of Cacicus haemorrhous, it would be well to place on record here the Peruvian localities from which this species has been taken. Typical specimens of pachyrhynchus have been examined from: the type locality, San Pedro de Cumbase, San Martín (NMS); Oroza (below Iquitos on the Amazon), Loreto (AMNH); Santa Rosa, upper Ucayali, Loreto (AMNH); Balta, Río Curanja, Loreto (LSU-see Lowery and O'Neill, 1965, for details of this locality, which is also the type locality for a newly described species of the same genus, Cacicus koepckeae). The record from Chamicuros, Loreto, listed under C. haemorrhous by Sclater and Salvin (1873) and under C. affinis by Sclater (1883) was placed in the synonymy of C. uropygialis by Hellmayr, with no indication as to whether he had examined the specimens. Judging from the locality, they were almost certainly C. h. pachyrhynchus. Hellmayr's listing of this reference under C. uropygialis, as well as his synonymizing of pachyrhynchus with the latter species, appears to have been based on nothing more than the assumption that no form of C. haemorrhous occurred in Peru, and that therefore all caciques from that country must be referred to C. uropygialis. I have been unable to verify the identity of the Chamicuros specimens;

the Bartlett collection is not in the British Museum (Natural History), nor is there any record there of what became of Bartlett's specimens.

Specimens from Peru north of the Amazon and Marañon (confluence of the Ríos Napo and Curaray [AMNH]; and Huachi, Río Pastaza [MLZ]) are intermediate between *haemorrhous* and *pachyrhynchus*. These two Peruvian localities were in Ecuador prior to the settlement in 1942 of the Oriente border dispute. Also intermediate between *haemorrhous* and *pachyrhynchus* are specimens from the Amazon drainage of southeastern Colombia in Caquetá and Vaupes (AMNH). Also probably intermediate, on geographic grounds, is the specimen from Sarayacu, Ecuador, in the British Museum (Natural History).

Specimens from eastern Pará, Brazil (CM, AMNH) tend to have the iridescence of *haemorrhous*, but, like the northern Peruvian specimens, are larger and have the base of the culmen more swollen, approaching *pachyrhynchus*. Measurements of Pará specimens are as follows: 6 adult males, wing 186–195 (191); tail 108.5–115 (111.6); culmen 37–39.5 (38.3); width of bill 10.5–11.5 (10.8). 4 adult females, wing 136–140 (138.3); tail 86.5–99 (90.9); culmen 31.5–33 (32.3); width of bill 9–11 (9.8).

No specimens have been examined from Brazil north of the Rio Solimões (Amazonas) and south of the Guianas; this is probably a zone of intergradation between *haemorrhous* and *pachyrhynchus*. Specimens from the Amazon drainage of northern Bolivia (a country also omitted from the range of this species by Meyer de Schauensee [1966]) are nearest true *pachyrhynchus*, but show some approach to *affinis* in their somewhat dull color (upper Río Beni, Beni [YPM]; Río Yapacani, Santa Cruz [CM]).

Cacicus haemorrhous affinis (Swainson) Figs. 1 and 2, left

Cassicus affinis Swainson, Ornithological Drawings, pt. 1, 1834: pl. 2 [not seen] ("Brazil," restricted to eastern Baía by Pinto, 1944: 544).
C[assicus] affinis, Sw. (crassirostris, Aliq.) Bonaparte, Comptes Rendus Acad. Sci. Paris, 37, 1853: 833 (no locality given).

C[assicus] aphanes Berlepsch, Journal für Ornithologie, 37, 1889: 300 ("Sta. Catharina" = Santa Catharina, Brazil).

Similar to *C. h. haemorrhous* in wing length; tail longer, more like *C. h. pachyrhynchus*; base of culmen not swollen, culmen not ridged; plumage moderately iridescent, with blue gloss, above, but dull and brownish below with no gloss or sheen of any kind; rump patch averaging more restricted than in *haemorrhous*, and more orange, less reddish scarlet; adult females apparently relatively seldom develop the full brightness of the rump patch as exemplified by AMNH 775573, Arroyo Urugua-i, Misiones, Argentina.

Measurements: 20 adult males, wing 165-185 (175.2); tail 109.5-

122 (115.9); culmen 34–39 (36.3); width of bill 7–8.5 (8). 11 adult females, wing 137–142 (139.8); tail 97.5–101 (99.9); culmen 29.5–32 (30.9); width of bill 7–8 (7.5).

Range: Blake (1968: 145) gives the range of this form as follows: "Eastern and south-central Brazil (Pernambuco, Bahia, Goiás, and southeastern Mato Grosso south to Santa Catharina, Paraguay, and northeastern Argentina (Chaco, Misiones)." Pinto (1944: 554) considered as "muito duvidosa" the locality "Pelotas, Rio Grande do Sul, Brazil" as published by Sclater (1886: 324). Pelotas is in southeastern Rio Grande do Sul, an area from which *Cacicus haemorrhous* is, indeed, probably absent. That the species almost certainly occurs in *western* Rio Grande do Sul is indicated by a specimen taken at Garruchos, Corrientes, Argentina, 20 May 1961 (CM), just across the Río Uruguay from the town of the same name in Rio Grande do Sul, Brazil. Incidentally, the Argentine portion of the range of this species as given by Meyer de Schauensee (1966: 432) should read "Misiones and Corrientes *westward* [not eastward] to eastern Formosa, eastern Chaco and northern Santa Fe."

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